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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LAU, TUNG S

ART UNIT PAPER NUMBER

2863

DATE MAILED: 07/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant No.

09/685,260

Applicant(s)

KLASSEN ET AL.

Examiner

Tung S Lau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

a. Claims 1, 12, 25 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashita et al. (U.S. Patent 5,331,855) in view of Rich (U.S. Patent 6,200,025)

Takashita discloses a method of using a system of computer-readable medium to automatically generate ultrasonic inspection system comprising, collecting data (col. 7, lines 19-58), calculate inspection parameter (col. 12, lines 9-21), outputting the result (col. 7, lines 19-58), displaying the data (fig. 6, col. 7, lines 43-59). Takashita does not disclose a data formatting concept, Rich disclose such approach (col. 6-7, lines 56-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takashita to have the data formatting concept taught by Rich in order to be more efficient in a network setting (see col. 2, lines 25-36).

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**b.** Claims 2, 20, 31 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita and Rich as applied to claims 1, 12, 25 and 36, and further in view of Bell et al. (U.S. Patent 4,945,501).

The Takashita and Rich combination disclose a method including the subject matter discussed above except the processing of geometry data, Bell teaches such subject matter (col. 4-5, lines 62-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takashita and Rich to have the processing of geometry data taught by Bell in order to solve special measurement problems (see col. 4-5, lines 62-4).

**c.** Claims 3, 21, 32 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita, Rich and Bell as applied to claims 2, 20, 31 and 42, and further in view of Tanaka et al. (U.S. Patent 5,384,905) and Wolstenholme et al. (U.S. Patent 5,297,905)

The Takashita, Rich and Bell combination disclose a method including the subject matter discussed above except the processing of flow line image and scan line image, Tanaka discloses the usage of flow line image processing (col. 7, lines 29-38), and Wolstenholme discloses the usage of scan line image (col. 3, lines 45-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takashita, Rich and bell to have the flow line

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image processing taught by Tanaka and scan line image taught by Wolstenholme in order to increase processing efficiency (see Tanaka col. 2, lines 20-27) and works for variety of control process (see Wolstenholme col. 1-2, lines 67-5).

d. Claims 8, 16, 24, 29 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita, and Rich as applied to claims 1, 12, 25 and 36, and further in view of Ichikawa et al. (U.S. Patent 5,659,491)

The Takashita and Rich combination disclose a method including the subject matter discussed above except the sequence of inspection scans, Ichikawa disclose such method and system (col. 3, lines 63-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takashita and Rich to have the sequence of inspection scans taught by Ichikawa in order to have a flexible inspection system (see col. 2, lines 11-21).

e. Claims 4, 9, 17, 22, 33, 30, 41 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita, Rich, Bell, Tanaka and Wolstenholme as applied to claims 2, 8, 16, 20, 31, 29, 40 and 42, and further in view of Kao et al. (U.S. Patent 6,070,177).

The Takashita, Rich, Bell, Tanaka and Wolstenholme combination disclose a method including the subject matter discussed above except the usage of revision

history/sheet, Kao disclose such application (col. 8-9, lines 56-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takashita, Rich, Bell, Tanaka and Wolstenholme to have the usage of revision history taught by Kao in order to have a complete data processing history (see col. 9, lines 1-2).

f. Claims 5, 23, 34 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita, Rich and Bell, as applied to claims 2, 20, 31 and 42, and further in view of Wilson et al. (U.S. Patent 5,208,747).

The Takashita, Rich and Bell combination disclose a method including the subject matter discussed above except the data of ultrasonic transducer characteristics, Wilson disclose such application (col. 4, lines 8-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takashita, Rich and Bell to have the data of ultrasonic transducer characteristic as taught by Wilson in order to have a selected region of scanning of the target (see col. 2, lines 4-5).

g. Claims 6, 14, 27 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita and Rich, as applied to claims 1, 12, 25 and 36, and further in view of Kimball et al. (U.S. Patent 5,146,432).

The Takashita and Rich combination disclose a method including the subject matter discussed above except the error plot to a cross section drawing of the target, Kimball disclose such approach (fig. 7.col. 13, lines 18-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takashita and Rich to have the error plot to a cross section drawing of the target as taught by Kimball in order to have an effective parameters determination system (see col. 4, lines 11-20)

h. Claims 7, 15, 28 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita and Rich as applied to claims 1, 12, 25 and 36, and further in view of Nottingham et al. (U.S. Patent 4,757,716) and Wilson et al. (U.S. Patent 5,208,747).

The Takashita and Rich combination disclose a method including the subject matter discussed above except the inspection parameters included rotational speed, part surface speed, transducer index speed, pulse repetition rate and scan length. Nottingham disclose such inspection parameters, rotational speed, part surface speed (col. 16, lines 40-64), and Wilson disclose a transducer index speed, pulse repetition rate and scan length (col. 4, lines 8-10). ). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takashita and Rich to have the inspection parameters included rotational speed, part surface speed, transducer index speed, pulse repetition rate

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and scan length as taught by Nottingham and Wilson in order to have an accurate remote controllable inspection system (see Nottingham col. 9, lines 26-67)

i. Claims 10, 18, 35 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita, Rich, Ichikawa and Bell as applied to claims 8, 16, 31 and 42, and further in view of Hsu et al. (U.S. Patent 6,327,921).

The Takashita, Rich, Ichikawa and Bell combination disclose a method including the subject matter discussed above except the verification of scans data are included, Hsu disclose such approach (col. 7-8, lines 65-27). ). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Takashita, Rich, Ichikawa and Bell to have the verification of scans data as taught by Hsu in order to reduce error for the system.

j. Claims 11, 13, 19, 26 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Takashita and Rich, as applied to claims 1, 12, 25 and 36 and further in view of Marti et al. (U.S. Patent 6,220,099).

The Takashita and Rich combination disclose a method including the subject matter discussed above except the usage of data correction and an instruction screen. Marti disclose such application (col. 19, lines 20-38, fig. 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to



modify the combination of Takashita and Rich to have the usage of data correction and an instruction screen taught by Marti in order to have a flexible system (see col. 3, lines 24-40)

### ***Response to Arguments***

2. Applicant's arguments filed 7/02/2002 have been fully considered but they are not persuasive.

Applicant argue the prior art lack of ultrasonic inspection planning features, Takashita discloses an ultrasonic inspection planning flow chart for the operation of the system (fig. 17).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 703-305-3309.

The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John S Hilten can be reached on 703-308-0719. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TL

Monday, July 15, 2002



**JOHN S. HILTEN**  
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